

**REMARKS**

Claims 13-25 were pending in the application. Claims 13 and 25 are independent.

Applicants respectfully request entry of the amendments and remarks made herein into the file history of the present invention. Reconsideration and withdrawal of the rejections set forth in the above-identified Office Action are respectfully requested.

**I. The Rejection Under 35 U.S.C. § 103(a)**

At pages 2-3 of the Office Action, Claims 13-25 are rejected under 35 U.S.C. § 102(a) as being allegedly unpatentable over Haywood et al (WO 95/34275; hereafter the `275 reference) in combination with Voet and Voet (1990) and further in combination with Kossman et al (WO 95/31553; hereafter the `553 reference). The Office Action maintains that the `275 reference teaches an oral hygiene composition cellulose spherical particles having a diameter within the instant range. The Office Action acknowledges that the `275 reference does not disclose that the cellulose particles are water-insoluble and unbranched. Voet and Voet is relied upon for disclosing that this is an inherent characteristic of cellulose. The `275 reference also does not teach that the depth of irregularities on the surface of the microparticle is at most 20% of the mean diameter of the microparticle nor the specific polyglucans of claim 13. The Office Action maintains, however, that the `275 reference allegedly teaches the same use within the same field of endeavor. The Office Action further maintains that the `553 reference discloses alpha 1,4 glucan fibers having the same properties as cellulose. The Office Action maintains that it would have allegedly been obvious to one of ordinary skill in the art at the time of the invention to substitute the polyglucans of the `553 reference, or any polyglucans having similar

properties into the formulation of the '275 reference in order to impart a beneficial effect and that a skilled artisan would allegedly have expectation that the formulation would have the same properties as cellulose. Applicants respectfully traverse.

At the outset, Applicants submit respectfully that, and indeed as acknowledged by the Office Action, the primary reference of Haywood ('275 reference) only discloses an oral hygiene composition comprising cellulose spherical particles. Applicants wish to respectfully remind the Examiner that, as one skilled in the art would indeed recognize, the cellulose employed in the oral hygiene composition comprising cellulose spherical particles of Haywood is a poly-1,4- $\beta$ -glucan (see page 1, lines 22-23 of the present specification). In support of this contention, the undersigned attempted to obtain a Declaration Under 37 C.F.R. Section 1.132 signed by the inventors of the above-identified application. The undersigned was subsequently informed that the inventors Bengs *et al.* of the above-identified application have since left Celanese Ventures GmbH (the assignee of the above-identified application), and are therefore not presently available to make the required Declaration Under 37 C.F.R. Section 1.132. Accordingly, as Dr. Stephan Hausmanns is now the individual most familiar with the pending claims of the above-identified application, Dr. Hausmanns is submitting this Declaration Under 37 C.F.R. Section 1.132 (hereinafter, the Hausmanns Declaration) in *lieu* of the inventors.

Accordingly, in support of Applicants' contention that one skilled in the art would indeed recognize that the cellulose employed in the oral hygiene composition comprising cellulose spherical particles of Haywood is a poly-1,4- $\beta$ -glucan (see page 1, lines 22-23 of the present specification), the attention of the Examiner is respectfully directed to the Hausmanns Declaration submitted concurrently herewith. In the Hausmanns Declaration, Dr. Hausmanns declares that the oral hygiene composition comprising cellulose spherical particles of Haywood

is a poly-1,4- $\beta$ -glucan. Dr. Hausmanns indicates, at paragraph 5 Hausmanns of the Declaration, that the novel microparticles of the present invention as claimed, are comprised of at least one water-insoluble unbranched poly- $\alpha$ -glucan, poly-1,3- $\beta$ -glucan, or mixtures thereof. Furthermore, Dr. Hausmanns expressly points out at paragraph 5 of the Declaration, that there is no poly-1,4- $\beta$ -glucan present in the microparticle oral hygiene composition of the presently claimed invention. Furthermore, given that the secondary reference of Voet and Voet is merely cited and relied upon by the Office Action to demonstrate that the poly-1,4- $\beta$ -glucan of Haywood's cellulose particles is water-insoluble and unbranched, Dr. Hausmanns indicates, at paragraph 5 of the Declaration, that the novel microparticle oral hygiene composition of the present invention as claimed, comprised of at least one water-insoluble unbranched poly- $\alpha$ -glucan, poly-1,3- $\beta$ -glucan, or mixtures thereof, are therefore neither taught nor suggested by Haywood, when taken either alone or in view of the secondary reference of Voet and Voet.

Accordingly, in view of the Hausmanns Declaration, Applicants respectfully submit that that the novel microparticle oral hygiene composition of the present invention as claimed, comprised of at least one water-insoluble unbranched poly- $\alpha$ -glucan, poly-1,3- $\beta$ -glucan, or mixtures thereof, are therefore neither taught nor suggested by Haywood, taken either alone or in view of the secondary reference of Voet and Voet.

Moreover, Applicants respectfully submit that Kossman, taken either alone or in combination with Voet and Voet, does not cure the deficiencies of Haywood with respect to the present invention as claimed. In particular, Applicants respectfully submit that, contrary to the position of the Office Action, Kossman does not teach or suggest that alpha-1,4-glucan has the same properties as cellulose, nor does it teach or suggest the novel microparticles of the present invention as claimed comprising at least one water-insoluble unbranched poly- $\alpha$ -glucan, poly-

1,3- $\beta$ -glucan, or mixtures thereof. In support of this contention, the attention of the Examiner is respectfully directed to the Hausmanns Declaration wherein Dr. Hausmanns supports Applicants contention with respect to the non-substitutability of either the alpha-1,4-glucan of the Kossman reference or the poly-1,4- $\beta$ -glucan of the Haywood reference for the at least one water-insoluble unbranched poly- $\alpha$ -glucan, poly-1,3- $\beta$ -glucan, or mixtures thereof of the presently claimed invention.

In particular, at paragraphs 6-7 of the Hausmanns Declaration, Dr. Hausmanns indicates that, at most, the Kossman reference only teaches that “[O]ne has succeeded in producing fibers from amylose whose properties are similar to those of natural cellulose fibers and which allow to partially or even completely replace them in the production of paper” (emphasis added). Dr. Hausmanns indicates at paragraph 7 that, in view of that teaching alone, one skilled in the art is *not* taught by this quoted passage from Kossman that amylose (i.e., an alpha-1,4-glucan) itself has the same properties as cellulose (i.e., a poly-1,4- $\beta$ -glucan). Rather, to the contrary, Dr. Hausmanns indicates that the Kossman reference is merely stating that it is *possible* to make fibers of amylose that have similar properties as fibers of cellulose. Dr. Hausmanns continues in paragraph 7 of the Hausmanns Declaration to state that there is therefore neither a teaching nor suggestion in the Kossman reference that *microparticles* of amylose will have the same properties as *microparticles* of cellulose. Moreover, Dr. Hausmanns states in the Hausmanns Declaration at paragraph 7, that even if it is possible to make fibers of amylose that have similar properties as fibers of cellulose, Kossman merely indicates that it is these similar properties which allow to partially or even completely replace them in the production of paper. Dr. Hausmanns therefore clearly states that there is simply no teaching or suggestion in the references of Haywood, Voet and Voet and Kossman, taken either alone or in combination, to

use fibers of amylose in the microparticle oral hygiene composition of the present invention as claimed, which microparticles are comprised of at least one water-insoluble unbranched poly- $\alpha$ -glucan, poly-1,3- $\beta$ -glucan, or mixtures thereof.

Accordingly, in view of the Hausmanns Declaration, Applicants respectfully submit that there is neither a teaching nor suggestion in the references of Haywood, Voet and Voet and Kossman, taken either alone or in combination, that microparticles of cellulose would have the same properties as the microparticles comprising at least one water-insoluble unbranched poly- $\alpha$ -glucan, poly-1,3- $\beta$ -glucan, or mixtures thereof of Applicants' claimed invention.

Thus, in view of the Hausmanns Declaration, Applicants respectfully submit that Haywood, taken either alone or in combination with the references of Voet and Voet and/or Kossman, fails to show the necessary teaching, suggestion, or motivation required to prove a *prima facie* case of obviousness. "It is impermissible to reconstruct the claimed invention from selected pieces of prior art absent some suggestion, teaching, or motivation in the prior art to do so." *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051-2, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988). Absent some teaching, suggestion, or motivation found within either Haywood, Voet and Voet, Kossman or their combination of the claimed oral hygiene product comprising spherical microparticles wherein the microparticles comprise at least one water-insoluble unbranched poly- $\alpha$ -glucan, poly-1,3- $\beta$ -glucan, or mixtures thereof, it cannot be inferred that Applicants' invention would have been obvious to one of ordinary skill in the art. "It is insufficient to select from the prior art the separate components of the inventor's combination, using the blueprint supplied by the inventor." *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ2d 543, 551 (Fed. Cir. 1985). Therefore, in view of the Declaration provided herewith by Dr. Hausmanns, Applicants respectfully submit that the secondary

reference of Kossman does not cure the deficiencies of either Haywood, Voet and Voet, taken either alone or in combination. Hence, Applicants respectfully submit that the combination of the cited references fails to meet the threshold required for establishing a *prima facie* case of obviousness under 35 U.S.C. § 103(a).

Accordingly, Applicants respectfully submit that, in view of the Declaration of Hausmanns and the arguments provided above, the rejection of Claims 13-25 under 35 U.S.C. § 103(a) has been overcome, and Applicants request respectfully that the rejection of Claims 13-25 under 35 U.S.C. § 103(a) be withdrawn.

**CONCLUSION**

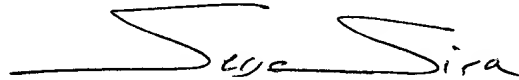
Applicants submit respectfully that the present application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-noted Office Action, and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3500. All correspondence should be directed to our address given below.

**AUTHORIZATION**

Applicants believe there is no fee due in connection with this filing. However, to the extent required, the Commissioner is hereby authorized to charge any fees due in connection with this filing to Deposit Account 50-1710 or credit any overpayment to same.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Serge Sira", written over a horizontal line.

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